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IN THE CLAIMS:

Please amend the following claims:

1. (Amended twice) A system for use in an external atmospheric environment of air at an external ambient air pressure and having an ambient oxygen concentration for providing a reduced-oxygen atmosphere to a user, said system comprising:

b' a gas separation device having an inlet intaking an intake gas mixture and first and second outlets, said first outlet transmitting a first gas mixture derived from said intake gas mixture and having a higher oxygen content than the intake gas mixture and said second outlet transmitting a second gas mixture derived from said intake gas mixture and having a lower oxygen content than the intake gas mixture;

a breathing chamber having an internal space therein containing air and including an entry communicating with said internal space and through which the user can enter said internal space;

said second outlet communicating with said internal space and transmitting said second mixture to said internal space so that said second mixture mixes with the air in the internal space;

22

IKK 202 ALT

said first outlet transmitting said first gas mixture to the external atmospheric environment; and

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said breathing chamber permitting the communication of air in at least one direction between the external atmospheric environment and the internal space and in combination with the gas separation device, maintaining the air in the internal space at a pressure generally equalized with the ambient air pressure of the external atmospheric environment and at a substantially constant concentration of oxygen substantially lower than said external ambient oxygen concentration.

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116. (Amended twice) A system for use in an external atmospheric environment of air at an external ambient air pressure for providing a low-oxygen environment for a user, said system comprising:

a chamber comprising a door and wall structure defining a closed space into which the user can enter through the door;

a gas processing device having an intake and first and second outlets, said device intaking a gas mixture through said intake and emitting a reduced oxygen gas mixture having a lower concentration of oxygen than said gas mixture through said first outlet and emitting an enriched-oxygen gas mixture having a greater concentration of oxygen than said gas mixture through said second

IKK 202 ALT

outlet;

said first outlet being connected with said chamber so that the reduced-oxygen gas mixture is emitted into said closed space inside the chamber and mixes with the air therein [causing the air in the closed space to have a lower oxygen concentration than the air outside the chamber];

2
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said chamber having apertures therein allowing communication therethrough of air in the outside environment with air in the chamber [so that], said chamber and said gas processing device maintaining the air in the closed space [remains] at a pressure substantially equal to the external ambient air pressure and at [said lower] a substantially constant oxygen concentration lower than the air outside the chamber;

said gas processing device comprising a separation unit to which the intake gas mixture from the inlet is transmitted, said separation unit separating the intake gas mixture into a reduced oxygen gas mixture with an oxygen concentration lower than said intake gas mixture and an enriched oxygen gas mixture with an oxygen concentration higher than said intake gas mixture, said separation unit having a reduced oxygen mixture conduit through which said reduced oxygen gas mixture is transmitted and an enriched oxygen mixture conduit through which said enriched oxygen gas mixture is transmitted;

IKK 202 ALT

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said first outlet being operatively associated with said reduced oxygen mixture conduit and receiving said reduced oxygen gas mixture therefrom, said second outlet being operatively associated with said enriched oxygen mixture conduit and receiving said enriched oxygen gas mixture therefrom and releasing said enriched oxygen gas mixture to the external atmospheric environment.

2117. (Amended twice) A system for hypoxic training and therapy simulating an oxygen-depleted mountain air of a higher altitude, said system comprising:

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a structure defining a closed space therein, said structure having a door and ventilating openings through which air can pass so that air in the closed space and air outside said structure remain at substantially equal pressures;

an oxygen content-reducing device separating an intake air mixture drawn from said air outside said structure into an oxygen concentrate and a nitrogen concentrate;

said oxygen content-reducing device transmitting said nitrogen concentrate through an outlet communicating with said closed space and causing said air in said closed space to be reduced in oxygen content relative to the air outside the structure, said device transmitting said oxygen concentrate through a second outlet to a location outside said structure;

35

IKK 202 ALT

33
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a control unit controlling the operation of said oxygen content-reducing device;
an oxygen content sensor monitoring an oxygen content level inside said closed
space and communicating with said control unit so that the oxygen content of the air in
the closed space is maintained at a substantially constant desired level.

REMARKS

Applicant wishes to express his gratitude to the Examiner for the courtesy
shown to Applicant's attorney during the recent telephone interview.

The present supplemental amendment is being made simply to clarify the claim
language. The corrections are believed to be self-explanatory.

With respect to the Examiner's question regarding how hypoxic conditions
increase alertness, applicant refers to the Guyton, Textbook of Medical Physiology
(cited Reference R), which states that pulmonary ventilation (breathing) increases
starting at about 8,000 feet, but that negative effects do not begin until about 12,000
feet. See Guyton, page 543, last paragraph, to page 544, first two paragraphs; and
page 545, first complete paragraph. In the present invention, the effect noted is that
in the range of about 8,000 to 12,000 feet (applicant's commercial model provides
oxygen at a concentration equivalent to about 9,000 feet) the increased breathing
causes alertness in the user.

36